



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: CF34-8E2      BYPASS RATIO: 5.1  
 UNIQUE ID NUMBER: 6GE093      PRESSURE RATIO ( $\pi_{00}$ ): 21.7  
 COMBUSTOR: LEC  
 ENGINE TYPE: TF      RATED THRUST ( $F_{00}$ ) (kN): 55.2

REGULATORY DATA      **\*\* DATA SUPERSEDED \*\***      SEE FOLLOWING UID FOR REVISED DATA:      **8GE113**

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	0.6	48.2	40.7	5.9
AS % OF ORIGINAL LIMIT	3.1	40.8	48.8	21.2
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			61.0	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			66.9	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			70.4	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			78.3	

DATA STATUS

- PRE-REGULATION  
 x CERTIFICATION  
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES  
 - DEDICATED ENGINES TO PRODUCTION STANDARD  
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE  
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)  
 x OUT OF PRODUCTION (DATE: - )  
 - OUT OF SERVICE (DATE: - )

MEASURED DATA

MODE	POWER SETTING (%F <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO <sub>x</sub>	
TAKE-OFF	100	0.7	0.591	0.02	0.59	13.60	4.6
CLIMB OUT	85	2.2	0.485	0.03	0.58	11.82	0.9
APPROACH	30	4.0	0.168	0.07	4.52	10.29	0.0
IDLE	7	26.0	0.062	0.16	20.01	4.45	0.0
LTO TOTAL FUEL (kg) or EMISSIONS (g)			226	21	2169	1939	-
NUMBER OF ENGINES				1	1	1	1
NUMBER OF TESTS				3	3	3	3
AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				0.4	39.3	35.1	4.6
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)							
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)							

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS  
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.1-98.1
TEMPERATURE (K)	284-292
ABS HUMIDITY (kg/kg)	0.0047-0.00727

FUEL

SPEC	Jet A
H/C	1.94
AROM (%)	18

MANUFACTURER: General Electric Company  
 TEST ORGANIZATION: Peebles Test Organisation  
 TEST LOCATION: Peebles, Ohio  
 TEST DATES: 27/01/2002-28/01/2002

REMARKS

1. GE Report R2001AE078
2. Engine S/N 193111
3. LEC combustor
4. Minor change to climb SN (0.92 to 0.87) in Issue 15

Compliance with Fuel Venting requirements: - ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)